Please add the following new claims:

--69. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, wherein said polypeptide is encoded by DNA selected from the group consisting of:

A) DNA comprising the sequence:

GTG TGT CC CAA GGA AAA TAT **GAT** AGT ATC CAC CCT CAA AAT ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TCG TTG TAC AAT **GAC TGT** CCA GGC CCG GGG CAG GAT ACG GAC **TGC** AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG CTC AGA CAC GGT CAG GTG GAG ATO TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT CAG TGC TGC AGC CTC GAA AAC CTT TTC TTC AAT TGC CTC AAT GGG ACC GTG CAC C/TC TCC TGC CAG GAG AAA CAG AAC ACC **GTG** TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC **GAG TGT AGT** ÁAC AAG AAA AGC CTG GAG TGC ACG AAG TCC TGT **TGT GTC** TTG TGC CTA CCC /CAG ATT GAG AAT

, or a C- and/or N/terminally shortened sequence thereof, wherein R² is absent or is a DNA comprising a sequence coding for a polypeptide which can be cleaved *in vivo*; and

B) DNA comprising the sequence:

R² GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA
AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC
TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC
AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC
CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG
GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC
GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT
GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT
GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG
TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT
GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG
TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC
TCA GGC ACC ACA

, or a C- and/or N- terminally shortened sequence thereof, wherein R² is absent or represents DNA coding for a polypeptide which can be cleaved *in vivo*.

70. Polypeptide according to claim 69, wherein R² is a DNA comprising a sequence which codes for a polypeptide which can be cleaved *in vivo*.

71. Polypeptide according to claim 69, wherein R² is a DNA comprising the sequence: CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA, or a C- and/or N- terminally shortened sequence thereof.

Polypeptide according to claim 69, wherein R² is a DNA encoding an amino acid sequence comprising: leu val pro his leu gly asp arg glu lys arg, or a C- and/or N- terminally shortened sequence thereof.

73. Polypeptide according to claim 70, wherein R² is a DNA comprising the sequence: R³ CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA, or a C- and/or N- terminally shortened sequence thereof, wherein R³ is a DNA coding for a signal peptide.

Polypeptide according to claim 10° , wherein 10° is a DNA encoding an amino acid sequence comprising: 10° leu val pro his leu gly asp arg glu lys arg, or a C- and/or N-terminally shortened sequence thereof, wherein 10° is a DNA coding for a signal peptide.

76. Polypeptide according to claim 33, wherein R3 is a DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA

; or/a C- and/or N- terminally shortened sequence thereof.

76. Polypeptide according to claim 73, wherein R³ is a DNA encoding an amino acid sequence comprising:

met gly leu ser thr val pro asp leu leu leu pro leu val glu leu gly ile tyr gly ile leu leu val pro ser val gly

; or a C- and/or N- terminally shortened sequence thereof.

- 77. Polypeptide according to claim 69, wherein said polypeptide is not associated with human urinary proteins.
- 78. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, wherein said polypeptide is encoded by DNA selected from the group consisting of:
 - A) DNA comprising the sequence:

CTG GTC CCT CAC/CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC CAC GTG GCAC GTG GCAC GTG GCAC GTG GCAC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT

, or a C- and/or N- terminally shortened sequence thereof;

B) DNA/comprising the sequence:

CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA

Concession

, or a C- and/or N- terminally shortened sequence thereof;

C) DNA comprising the sequence:

GAT AGT
GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG
ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT
GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT
GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC
TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG
GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC
TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT
TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG
CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC
CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA
CCC CAG ATT GAG AAT

, or a C- and/or N- term/nally shortened sequence thereof; and

D) DNA comprising/the sequence:

GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT ATT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TT.C ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TCC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG TTC CAC CTC TCC TGC/CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC/ TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA

, or a C- and/or N- terminally shortened sequence thereof.

79. Polypeptide according to claim 78, wherein said polypeptide is not associated with human urinary proteins.



80. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, wherein said polypeptide is encoded by DNA selected from the group consisting of:

A) DNA comprising the sequence:

ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT

, or a C- and/or N- terminally shortened sequence thereof;

B) DNA comprising the sequence:

ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC CAC GTG TGC AGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA ACC CAG AAT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA

, or a C- and/or N- terminally shortened sequence thereof;



C) DNA comprising the sequence:

GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC CAC GTG AAA AAC GAG AAC ACC GTG TGC CAC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAA

, or a C- and/or N- terminally shortened sequence thereof;

D) DNA comprising the sequence:

GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAC ACC GTG TGC AGT GAA AAC CTT AGT GAA AAC CTT TTC CAG TGC TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGC CAT GAG AAC TGT GAG AAA AGC CTG GAG TGC ACC ACA ACA ACC CTG GAG AAC ACC GTG TGC CTA AGA AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA ACA

or a C- and/or N- terminally shortened sequence thereof;

E) DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG



that!

ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT

, or a C- and/or N- te/minally shortened sequence thereof;

F) DNA comprising the sequence:

ATG GGC CTC /TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA CTG GT¢ CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT C/CA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC/TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CT/C TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA

, or a C- and/or N- terminally shortened sequence thereof;

G)/ DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA



AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG CAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT

, or a C- and/or N- terminally shortened sequence thereof;

H) DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA GAT AG/I GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TGG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GAA AAC GAG TGT TCC TGC CTC AAT GGC ACC TGC CAT GAA AAC GAG TGT TCC TGC TGC TGC TGC ACG AAG TGT TCC TGC TGC CAG GAG AAA CAG AAC ACC GTG TGC TCC TGC TGC TGC AAG GAC ACC GAG TGC ACC TGC CAC AAG GAC ACC GTG TGC CAC CAC ACC GTG TGC ACC ACA ATT GAG AAA AGC CTG GAG TGC ACC GAG TTC TGC CAC AAG GAC ACC GAG TTC TCC TGC CAC AAG GAC ACC GAG TGC ACC ACA

, or a $oldsymbol{c}$ - and/or N- terminally shortened sequence thereof; and

I) /DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT

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GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG /TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT/TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA GTG CTG TTG CCC CTG GTC ATT TTC TTT GGT CTT TGC CTT TTA TCC CTC CTC/TTC ATT GGT TTA ATG TAT CGC TAC CAA CGG TGG AAG TCC AAG CTC TAC TCC ATT GTT TGT GGG AAA TCG ACA CCT GAA AAA GAG GGG GAG CTT GAA GGA ACT ACT ACT AAG CCC CTG GCC CCA AAC CCA AGC TTC AGT CCC ACT CCA GGC TTC ACC CCC ACC CTG GGC TTC AGT CCC GTG CCC AGT TCC ACC TTC ACC TCC AGC TCC ACC TAT ACC CCC GGT GAC TGT CCC AAC TTT GCG GCT CCC CGC AGA GAG GTG GCA CCA CCC TAT CAG GGG GCT GAC CCC ATC CTT /GCG ACA GCC CTC GCC TCC GAC CCC ATC CCC AAC CCC CTT CAG/ AAG TGG GAG GAC AGC GCC CAC AAG CCA CAG AGC CTA GAC ACT/ GAT GAC CCC GCG ACG CTG TAC GCC GTG GTG GAG AAC GTG CC¢ CCG TTG CGC TGG AAG GAA TTC GTG CGG CGC CTA GGG CTG AGC GAC CAC GAG ATC GAT CGG CTG GAG CTG CAG AAC GGG CGC TGC CTG CGC GAG GCG CAA TAC AGC ATG CTG GCG ACC TGG AGG CGG CGC ACG CCG CGC CGC GAG GCC ACG CTG GAG CTG CTG GGA CGC GTG CTC CGC GAC ATG GAC CTG CTG GGC TGC CTG GAG GAC ATC GAG GAG GCG CTT TGC GGC CCC GCC GCC CTC CCG CCC GCG ¢CC AGT CTT CTC AGA

, or a C- and/or N- terminally shortened sequence thereof.

81. Polypeptide according to claim 80, wherein said polypeptide is not associated with human urinary proteins.

82. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, characterized in that the polypeptide is encoded by a nucleic acid which hybridizes with DNA complementary to the DNA defined in claim 69 under conditions of moderate stringency.

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- 83. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, wherein said polypeptide is selected from the group consisting of:
 - A) a polypeptide compr/sing the amino acid sequence:

R² asp pro ser val cys gln gly lys tvr ile his pro gln asn asn ser ile cys /cys thr lys cys his lys gly thr tyr leu cys thr tyr asn asp pro gly pro gly gln asp asp CVS arg glu ser ser phe thr ala glu asn his leu glu cys gly ser his leu/ ser lys glu **CYS** cys ser lys cys arg met gly arg gln glu ile/ ser ser thr val asp asp thr val val Cys arg arg a/g lys asn gln tyr his tyr trp **CYS** gly cys ser glu asn léu phe gln cys phe asn cys ser leu cys leu thr val his leu gln glu lys gln asn thr asn gly ser Cys thr his phe leu glu glu val cys cys ala gly phe arg asn leu glu cys thr cys val ser cys ser asn cys lys lys ser lys leu cys/ leu pro gln ile glu asn

, or a C- and/or N- terminally shortened sequence thereof, wherein R² is absent or is a polypeptide which can be cleaved *in vivo*; and

B) a polypeptide comprising the amino acid sequence:

R² asp val ser lys tvr ile his gln Cys pro gln gly pro asn asn ser ile cys thr his lys gly thr leu cys lys cys tyr tyr asn asp cys pro gly pro gly gln asp thr asp cys arg glu cy\$ glu gly ser phe thr ala ser glu asn his leu ser hi\$ CVS leu lys lys glu met gly arq ser cys ser CVS arg vál gln glu ile ser ser Cys thr val asp arg asp thr val glu gly cys arg lys asn gln tyr his tyr trp ser cys arg phe gln phe leu leu gly asn *l*eu cys asn cys ser cys asn thr kal his leu ser Cys gln glu lys gln asn thr val **CYS** thr his ala phe phe leu glu glu val cys gly arg asn CVS thr cys leu glu cys lys leu ser **CYS** ser asn lys lys ser cys leu pro gln ile glu asn val lys gly thr glu asp ser thr gly thr

, of a C- and/or N- terminally shortened sequence thereof, wherein R² is absent or is a polypeptide which can be cleaved *in vivo*.

84. Polypeptide according to claim 83, wherein R² is a polypeptide comprising an amino acid sequence which can be cleaved *in vivo*.

85. Polypeptide according to claim 84, wherein R² is a polypeptide comprising the amino acid sequence :

TOSSO

leu thr asp leu leu leu leu val gly ser val pro pro leu glu leu leu val gly ile tyr pro ser gly val ile gly

; or a C- and/or N- terminally shortened sequence thereof.

- 86. Polypeptide according to claim 83, wherein said polypeptide is not associated with human urinary proteins.
- 87. A polypeptide having the ability to bind to TNF comprising an amino acid sequence as set forth in claim 83 with at least one intrasequence conservative amino acid substitution in the sequence of claim 83.
- 88. Polypeptide according to claim 87, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.
- 89. Polypeptide according to claim 88, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.
- 90. Polypeptide according to claim 88, wherein said polypeptide includes at least one additional amino acid at the amino-terminus.
- 91. Polypeptide according to claim 90, wherein said polypeptide includes a methionine at the amino-terminus.
- 92. Polypeptide according to claim 88, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.
- 93. Polypeptide according to claim 87, wherein said polypeptide includes a methionine at the amino-terminus and said amino acid substitution is at a glycosylation site.

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- 94. Polypeptide according to claim 87, wherein said amino acid substitution is at a glycosylation site.
- 95. A recombinant/polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, characterized in that the polypeptide is encoded by a nucleic acid which hybridizes with DNA complementary to the DNA defined in claim 83 under conditions of moderate stringency.
- 96. Polypeptide according to claim 83, wherein said polypeptide is selected from the group consisting of:
 - A) a polypeptide comprising the amino acid sequence:

asp ser val cys pro gln gly lys tyr ile his pro gln asn ile thr asn cys lys cys his lys gly thr tyr ser cys leu a/sp thr tyr asn cys pro gly pro gly gln asp asp Cys arg glu cys ģlu ser gly ser phe thr ala ser glu asn his leu his /cys leu ser cys ser lys CVS lys glu met gly arg arg gln glu ile thr val ser ser cys val asp asp thr val arg gly arg lvs asn aln tyr his trp **CYS** Cys arg tyr leu phe gln phe leu ser glu asn cys asn cys ser leu cys gly thr val his leu gln qlu lys gln thr asn ser cys asn val cy\$ thr cys his ala gly phe phe leu arg glu asn glu val thr CVS ser **CYS** ser asn Cys lys lys ser leu glu cys lys leu cys leu gln ile glu asn pro

, or a ϕ - and/or N- terminally shortened sequence thereof;

B) /a polypeptide comprising the amino acid sequence:

leu val his leu pro gly asp arg glu lys arg asp ser val pro cys pro gln gly lys tyr ile his gln asn asn ser ile cys thr lys cys his lys gly thr leu cys tyr tyr asn asp cy\$ pro gly pro gly gln asp thr CVS glu glu asp arq CVS self gly ser phe thr ala ser glu asn his leu arg his cys leu ser **CYS** ser lys Cys arg lys glu met gly gln val glu ilé thr val thr ser ser cys asp arg asp val cys gly cys arg lys asn gln tyr arg his tyr trp ser glu asn leu phe ģln his phe asn ser leu gly thr val Cys **CYS** leu Cys asn leu his ser glu gln asn thr val thr cys gln lys cys cys

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phe val glu glu cys ser ćys ala gly phe leu arg asn ser leu cys thr lys cvs' leu asn cys lys lys ser leu glu pro ile gln glu asn

, or a C- and/or N- terminally shortened sequence thereof;

C) a polypeptide comprising the amino acid sequence:

val gln gly lys tyr ile his pro gln asn cys pro asp ser his' ile cys cys thr lys cys lys gly thr tyr leu asn ser gln thr asp **CYS** pro gly pro gly asp asp CVS arg tyr asn glu thr ala asn leu glu **CYS** ser gly ser phe ser glu his his cys leu ser **CYS** ser lyş/ cys arg lys glu met gly arg gln glu ile ser ser **CYS** thr val asp thr val val asp arg gln lys asn tyr his trp ser glu **CYS** gly **CYS** arg arg tyr asn leu phe gln cys phe asní **CYS** ser leu **CYS** leu asn gly his leu ser cys gľn gln thr val thr val glu lys asn **CYS** his ala gly phe phe! leu glu asn glu cys val thr cys arg glu thr ser **CYS** ser asn cys lys lys ser leu cys lys leu gļú asn leu gln ile val lys gly thr glu ser cys pro asp gly thr thr

, or a C- and/or N- terminally shortened sequence thereof; and

D) a polypeptide comprising the amino acid sequence:

leu val pro hiş leu gly glu lys arg ser val asp arg asp **CYS** pro gln gly lys tyr ile his pro gln asn asn ser ile ⁄lys thr his thr tyr leu **CYS CYS CYS** lys gly tyr asn asp gln cys pro gly pro gly asp thr asp CVS arg glu cys glu ser gly ser phe thr ala ser glu asn his leu arg his **CYS** çýs leu ser lys cys lys glu met gly gln val glu ser arg ile ser thr thr val ser cys val asp arg asp cys gly cys lys asn gln tyr his tyr trp ser glu asn leu phe arg arg gln phe his cyś asn cys ser leu cys leu asn gly thr val sér leu gln glu lys gln asn thr val cys thr cys his cys ģΙy glu val ala phe phe leu arg glu asn cys ser cys ser lys lys thr lys leu **CYS** ser leu glu cys cys leu pro asn gln/ ile glu thr glu thr thr asn val lys gly asp ser gly

or a C- and/or N- terminally shortened sequence thereof.



- 97. Polypeptide according to claim 96, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.
- 98. Polypeptide according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.
- 99. Polypeptide according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-ten finus.
- 100. Polypeptide according the claim 99, wherein said polypeptide includes a methionine at the amino-terminus.
- 101. Polypeptide according to claim 97, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.
- 102. Polypeptide according to claim 66, wherein said polypeptide is not associated with human urinary proteins.
- 103. A recombinant polypeptide which is nonglycosylated or has a glycosylation pattern different from urinary-derived TNF inhibitor and has the ability to bind to TNF, wherein said polypeptide is selected from the group consisting of: :
 - A) a polypeptide comprising the amino acid sequence:

met asp ser val cys pro gln gly lys tyr ile his pro gln øer. asn asn ile cys cys thr lys cys his lys gly thr tyr pro leu ′asn cys pro gly gln asp thr tyr asp gly asp **CVS** arg glu cys glu ser gly ser phe thr ala ser glu asn his his leu arg Cys leu ser Cys ser lys CVS lys glu met arg gly gļń val glu ile thr ser ser cys val asp arg asp thr val ¢ys. gly cys arg lys asn gln tyr arg his tyr trp ser glu ⁄asn leu phe gln phe leu Cys asn cys ser Cys leu asn his gly thr val leu ser cys gln glu lys gln asn thr val thr his phe cys/ cys ala gly phe leu arg glu asn glu cys vaľ ser cys ser asn cys lys lys ser leu glu Cys thr lys leu leu ile cys pro gln glu asn

or a C- and/or N- terminally shortened sequence thereof;

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B) a polypeptide comprising the amino acid sequence:

met	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser/
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	șer
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr /	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glģr	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	∕aŕg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly/	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	yál	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	∕glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	_asņ∕	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn					•				

, or a C- and/or N- terminally shortened sequence thereof;

C) a polypeptide comprising the amino acid sequence:

met	asp	ser	val	cys	pro	gln	glý	lys	tyr	ile	his	pro	gln
asn	asn	ser	ile	cys	cys	thr	∕liys	cys	his	lys	gly	thr	tyr
leu	tyr	asn	asp	cys	pro	gly/	pro	gly	gln	asp	thr	asp	cys
arg	glu	cys	glu	ser	gly	şér	phe	thr	ala	ser	glu	asn	his
leu	arg	his	cys	leu	ser	/cys	ser	lys	cys	arg	lys	glu	met
gly	gln	val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr
val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser
glu	asn	leu	phe	gln	/cys	phe	asn	cys	ser	leu	cys	leu	asn
gly	thr	val	his	leu/	ser	cys	gln	glu	lys	gln	asn	thr	val
cys	thr	cys	his	aľa	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	/asn	cys	lys	lys	ser	leu	glu	cys	thr	lys
leu	cys	leu	pro/	gln	ile	glu	asn	val	lys	gly	thr	glu	asp
ser	gly	thr	tþŕ										

, or a C- and/or/N- terminally shortened sequence thereof;

D) a polypeptide comprising the amino acid sequence:

met	leu/	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cyś	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	çýs	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn



Ent what

pro gly pro gly gln asp thr cys glu asp **CYS** asp arg **CVS** glu ser gly ser phe thr ala ser glu asn his leu arg his **CVS** leu lys lys gln val ser cys ser cys arg glu met gly ⁄gly glu ile ser ser cys thr val asp arg asp thr val cys **CVS** arg lys asn gln tyr arg his tyr trp ser glu asn/ leu phe leu thr' val phe gln cys asn cys ser cys leu asn gly his leu gln glu lys gln thr val cys thr ser cys asn **CYS** glu his ala gly phe phe leu arg asn glu cys val ser cys thr lys leu glu cys lys leu cys leu ser asn cys lys ser pro gln ile glu asn val lys gly thr glu asp s∕er gly thr thr

, or a C- and/or N- terminally shortened sequence thereof;

E) a polypeptide comprising the amino acid sequence:

asp thr val leu/ leu val met gly leu ser pro leu pro leu ile t√r ile leu leu glu leu leu val gly pro ser gly val his leu gly leu val pro gly asp arg glu lys asp ser arg val cys pro gln gly lys tyr ile, his pro gln asn asn ser ly's thr cys his thr leu ile **CYS** lys gly tyr tyr asn Cys asp cys pro gly pro gly gln asp thr asp **CVS** arg glu **CYS** ala/ glu ser gly ser phe thr ser glu asn his leu arg his çýs cys leu ser cys ser lys arg lys glu met gly gln val thr ′val thr gly glu ile ser ser cys asp arg asp val cys cys arg lys asn gln tyr arg his tyr trp ser glu asn leu val phe gln asn cys ser CVS gly thr **CYS** phe leu leu asn gln his leu ser cys ∕ģlu lys gln asn thr val cys thr cys leu his ala gly phe phe arg glu asn glu cys val ser cys lyş' ser asn cys lys ser leu glu **CYS** thr lys leu cys leu ile glu asn gln pro

, or a C- and/or N- terminally shortened sequence thereof;

F) a polypeptide comprising the amino acid sequence:

		leu glu											
gly	leu	√al	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	/ pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys/	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn

E't. P



pro gly pro gly gln asp thr **CYS** glu asp **CYS** asp arg **CVS** glu ser gly ser phe thr ala ser glu asn his leu arg his leu lys arg gly val/ **CVS** ser cys ser cys lys glu met gln glu ile ser ser cys thr val asp arg asp thr val cys glý cys arg lys asn gln tyr arg his tyr trp ser glu asn ∕leu phe gln cys phe asn **CYS** ser leu cys leu asn gly thr val his gln glu gln thr val thr leu ser CYS lys asn cys cys his ala gly phe phe leu arg glu asn glu cys val ⁄ser **CYS** leu glu thr lys leu leu ser asn **CYS** lys lys ser **CYS** cys sér pro gln ile glu asn val lys gly thr glu asp gly thr thr

, or a C- and/or N- terminally shortened sequence thereof;

G) a polypeptide comprising the amino acid sequence?

gly leu thr val leu leu leu leu val met ser pro asp pro leu glu leu leu val gly ile tyr, ile leu pro ser gly val gln lvś his gly asp ser val cys pro gly tyr ile pro gln asn asn ser ile cys cys thr lys cys his lys gly thr tyr pro/ gly thr leu tyr asn asp **CYS** pro gly gln asp asp **CYS** phe thr his arg glu cys glu ser gly ser ala ser glu asn ⁄ser leu arg his cys leu ser cys lys **CVS** arg lys glu met gly gln val glu ile ser ser, cys thr val asp arg asp thr lys as'n his gly cys arg gln tyr arg tyr trp ser val cys phe. glu asn leu phe gln cys asn cys ser leu cys leu asn glu thr val gly thr val his leu ser cys gln lys gln asn phe thr cys his ala gly phe leu arg glu asn glu cys cys val ser **CYS** ser asn **c**ys lys lys ser leu glu cys thr lys 'ile leu cys leu pro gln glu asn

, or a C- and/or N- terminally shortened sequence thereof;

H) a polypeptide comprising the amino acid sequence:

met	gly leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu glu	/leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
	asp ser											
	asn sér											
leu	tyr <i>j</i> ásn	asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys
arg	glu / cys	glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his

Cont.



leu arg his cys leu ser **CVS** ser lys **CVS** arq lvs alu met gln val glu ile thr gly ser ser **CYS** val asp arg asp thr. val gly lys sér cys cys arg asn gln tyr his trp arg tyr leu phe gln phe leu ∕asn glu asn cys asn **CVS** ser leu Cys his leu thr gly thr val ser cys gln glu lvs gln asn val thr cys his ala gly phe phe leu glu glyí cys arg asn cys val **CVS** ser asn cys lys lys ser leu glu cys thr lys ser gln leu cys leu pro ile glu asn val lys gly thr glu asp thr thr ser gly

, or a C- and/or N- terminally shortened sequence thereof; and

1) a polypeptide comprising the amino acid sequence:

leu leu met leu thr val asp leu/ val gly ser pro pro leu руб leu leu glu leu leu val gly ile tyr ile ser gly val arg ģlu leu val his leu gly lvs gly pro asp arg asp ser gln ile his val cys pro gly lys tyr pro qln asn asn ser ile thr lys cys his gly thr tyr cys cys lys leu tyr asn asp cys pro gly pro gly gln asp thr asp cys arg glu cys glu glu gly ser phe thr ala ser asn his leu his ser arg cys lys arg' lys glu gly val leu ser cys ser cys met gln val glu ile thr ąśp thr gly ser ser **CVS** arq asp val cys glu asn gln his/ leu cys arg lys asn tyr arg tyr trp ser phe gln phe asn **CVS** ser leu leu asn gly thr val **CYS** CVS lyś his leu ser Cys gln glu gln asn thr val cys thr **CYS** phe leu glu val his ala qly phe árg glu asn CVS ser CVS leu thr lys leu ser asn **CYS** lys lys ser glu CVS leu cys val∕ glu lys qlu thr pro gln ile asn gly thr asp ser gly thr leu leu pro leu val ile phe phe gly leu leu val cys leu leu phe ∕ile gly leu met tyr tyr qln leu ser arq arg leu thr trp lys ser lys tyr ser ile val cys gly lys ser gly glu thr glu glu leu glu gly thr thr lys pro pro lys pro thr thr leu ala pro asn ser phe ser pro pro gly phe thr gly phe ser ser ser thr phe thr pro leu pro val pro thr tyr thr gly **CYS** asn phe ala ser ser ser pro asp pro ala glu val ala tyr gln gly ala pro arq arg pro pro asp ala pro ile leu thr ala leu ala ser asp pro ile pro asn lys his lys pro leu gln trp glu asp ser ala pro gln ser leu thr ala thr leu val asp asp asp pro tyr ala val glu val pró pro leu lys alu phe val leu asn arg trp arg arg

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Drug Property

												gln	
gly	arg	cys	leu	arg	glu	ala	gln	tyr	ser	met	leu	ala	thr
trp	arg	arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu cys leu	leu
leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly	cys	leu
glu	asp	ile	glu	glu	ala	Teu '	cys	gly	pro	ala	ala	leu	pro
pro	ala	pro	ser	leu	∕leu	arg							

, or a C- and/or-N- terminally shortened sequence thereof.

104. Polypeptide according to claim 103, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.

105. Polypeptide according to claim 104, wherein said polypeptide includes at least one additional amino acid/at the earboxyl-terminus.

106. Polypeptide according to claim 103, wherein said polypeptide is not associated with human urinary proteins.--

REMARKS

Claims 40 to 48 and 54 to 66 have been canceled without prejudice or disclaimer.

Claims 27, 49, 67, and 68 have been amended to change their dependency. Claims 69 to 106 have been added. Thus, claims 24, 27 to 39, 49 to 53, 67, 68, and 69 to 106 are pending.

The amendments and the cancellation of claims have not been made in response to a rejection or in acquiescence to a rejection. The amendments have been made to even more clearly recite the applicants' inventions.

Solely to expedite prosecution, applicants have amended and canceled claims such that the term "variant" is not included in the claims. The terms "variant" (other than "degenerate variants") was not included in the claims as previously examined, and thus, there

